

### **REMARKS**

Applicant respectfully requests reconsideration of this application in view of the foregoing amendment and following remarks.

#### **Status of the Claims**

Claims 1-308 are pending in this application. Claims 67-71 and 138-308 are withdrawn from consideration pursuant to 37 C.F.R. §1.142(b) based on the reply filed on September 13, 2004. As a result, claims 1-66 and 72-137 are currently remaining. Among the remaining claims, claims 1, 14, 27, 38, 47, 56, 72, 85, 98, 109, 118 and 127 are independent. Claims 1-66 and 72-137 stand rejected. By this amendment, independent claims 1, 14, 27, 38, 47, 56, 72, 85, 98, 109, 118 and 127 are amended. No new matter has been added by this amendment.

#### **Rejection under 35 U.S.C. §103**

Claims 1-66 and 72-137 have been rejected under 35 U.S.C. §103(a) as being unpatentable over an IEEE article entitled "Applying Agents to Search Goods Information based on Three-Level Metadata Architectures" (1999, pp. 630-634, ISBN:0-7695-0281-4) by Liu ("Liu") in view of U.S. Patent No. 6,587,127 to Leeke et al. ("Leeke").

The Examiner states that Liu addresses a fundamental deficiency of the prior art, "namely the number of web pages to be searched is very large." The Examiner emphasizes that Liu resolves this deficiency "by application of a multi-level architecture." The Examiner cites to a particular example in Liu involving "category-, goods-, and resource-level metadata within a (Virtual) Directory Information Tree (DIT), depicted in Figure 2 page 633, LHC and emphasizes that "[s]earch of this structure corresponds to the first-, second-, and third-level search categories of the claims" of applicant's invention.

However, Liu's multi-level metadata search architecture is completely different from applicant's claimed invention. Specifically, Liu discloses a three-level metadata search architecture wherein each level defines a further narrowed or filtered search of the worldwide web. Thus, Liu discloses a multi-level internet search system. The three-level metadata comprises a resource level metadata (e.g. virtual stores and malls as shown in Table 1), goods category level (e.g., category attributes as shown in Table 2) and goods level (e.g., product as shown in Table 3). Fig. 1 of Liu discloses an agent-based search system architecture in which several agents such as a broker agent, a category model agent and a user agent are shown. Liu describes in page 632 that "[t]he agent communicates with other agents to achieve the search for goods information effectively." In particular, applicant notes that the Directory Information Tree (DIT) as shown in Fig. 2 of Liu illustrates a hierarchy between resource nodes and category nodes. Liu describes in page 633 that "[t]he broker agent uses DIT to check possible data resources that may sell goods satisfying the customer's request."

It is known that a conventional search system (e.g., google.com) is based on a text-based matching process and can retrieve information from broad ranges of text-based databases throughout the Internet by matching search terms. It is also known that this type of search system usually retrieves a large amount of information which is not relevant.

Applicant notes that Liu describes a conventional search system that searches information throughout the databases of the Internet. In an effort to better target the search and reduce the amount of retrieved information, Liu's system adopts "a filtering method" using the three-level metadata search architecture. Liu discloses on page 631 that:

By searching the Resource-level metadata, the search system can determine the possible resources that may contain goods satisfying the customer's request. The search system can then issue the customer's query to those resources for further search without need to search all resources on the Internet.

As applicant understands the disclosure of Liu, Liu discloses a multi-level metadata search system, wherein the scope of the internet search undertaken on each level is further narrowed or filtered by metadata.

Additionally, a portion of Liu (i.e., page 634) describes how a user interacts with the search system as follows:

A user is able to select one of the supported categories, and then enters the criteria values of the attributes. Once the user selects the "HardDisk" category, he knows the attributes, including "Speed", "Volume", "Type", "Price" and "Manufacture", are the searchable attributes of the HardDisk category.

Thus, it appears that the user can add attributes (i.e., Speed, Volume, Type, Price and Manufacture) in addition to the category (i.e., HardDisk) for a search, so that the search system better targets the search through internet databases.

Leeke is also identified by the Examiner as disclosing a multi-level search system and a categorical search for content. The Examiner cites col. 1, lines 14-20 and col. 5, lines 7-15 of Leeke for support. Specifically, Leeke discloses a content player method for movies and music. One of the portions of Leeke (col. 5, lns. 7-15) cited by the Examiner describes that "[t]he browse mode supports a categorical search for content using a visual interface. The content is categorized into a plurality of categories of content to assist in browsing for content. Preferably, the categories include a radio category, an events category, a library category, and a music category." However, nowhere does Leeke disclose or suggest multi-level search architecture and, thus, there is no motivation to combine Leeke and Liu.

Moreover, another portion of Leeke (col. 11, lns. 56-59) cited by the Examiner teaches away from the present invention in describing “the display window can be fully displayed within a browser window without requiring scrolling.” The present invention encourages scrolling to select a category within each level to guide a user to a specific website (or URL).

In contrast to the teachings of Leeke and Liu, the present invention is directed to a directory system in which a user is guided to an Internet website (i.e., a URL) in a step by step sequence without searching for the required information through narrowed or filtered searches of databases of the Internet. The present invention provides multi-level predetermined category architecture controlled by a server wherein each level contains multiple categories preselected and uploaded by the directory service provider to guide a user to a specific website (or URL) without undertaking a search of the Internet on each level. Specifically, the present invention utilizes levelized categories linked with each other under the control of a service provider of the directory system.

For example, the directory system of the present invention provides a user with a first interface displaying a plurality of first-level categories from which the user can select a category of interest. Once the user selects a category (e.g., Barbecue), the directory system provides the user with a second interface displaying second-level categories (e.g., Accessories, Sauces, Manufacturers, etc.) linked directly from the selected first-level category (i.e., Barbecue). The user then selects one of the second-level categories (e.g., Manufacturers). The directory system of the present invention then provides the user with a third interface displaying third-level categories (e.g., Weber, Lynx, Smoker, etc.) which are also linked directly from the selected second-level category (i.e., Manufacturers). Each of the third-level categories is linked to an

internet website. As a result, once the user selects one of the third-level categories (e.g., Weber), the directory system guides the user to the website of the selected manufacturer (i.e., Weber).

In the present invention, the number of category levels as well as the number and type of categories within each level are predetermined by a service provider. That is, the categories on each level are preselected and uploaded by the service provider. Thus, the user is guided in a step by step sequence by clicking through the preselected and uploaded categories on each level without having to search for the required information through narrowed or filtered searches of the Internet on each level. Moreover, the directory system of the present invention enables the service provider to update the directory system by simply updating the categories in each level. For example, a new category may be added by simply uploading the new category or an existing category may be removed by simply deleting the existing category from the list.

In summary, Liu discloses a conventional search system with the added multi-level metadata search architecture which is entirely different from the directory system of the present invention which provides multi-level predetermined category architecture controlled by a server wherein each level contains multiple categories preselected and uploaded by the directory service provider to guide a user to a specific website (or URL) without undertaking a search of the Internet on each level. Moreover, there is nothing in Leeke, including the portions cited by the Examiner, that teaches a multi-level architecture system, much less the directory system of the present invention.

Accordingly, each of independent claims 1, 14, 27, 38, 47, 56, 72, 85, 98, 109, 118 and 127 as amended is believed neither anticipated by nor rendered obvious in view of Liu and Leeke, either taken alone or in combination, for at least the reasons as discussed above. Each claim has

been amended to specifically recite that the multi-level categories are controlled by the service provider of the virtual directory, such that the claimed inventions guide a user to a specific website (or URL) without undertaking a narrowed or filtered search of the Internet on each level.

Reconsideration and withdrawal of the rejections of claims 1, 14, 27, 38, 47, 56, 72, 85, 98, 109, 118 and 127 under 35 U.S.C. §103(a) is respectfully requested.

Applicant has not individually addressed the rejections of the dependent claims because Applicant submits that the independent claims from which they respectively depend are in condition for allowance as set forth above. Applicant, however, respectfully reserves the right to address such rejections of the dependent claims if necessary.

Applicant believes that the application is in condition for allowance and such action is respectfully requested.

**AUTHORIZATION**

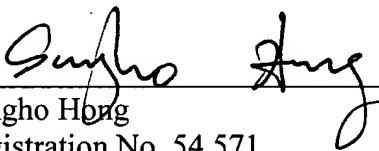
No petitions or additional fees are believed due for this amendment and/or any accompanying submissions. However, to the extent that any additional petitions and/or fees are required, including a petition for extension of time, Applicant hereby petitions the Commissioner to grant such petition, and hereby authorizes the Commissioner to charge any additional fees, including any fees which may be required for such petition to Deposit Account No. 13-4500 (Order No. 4150-4000US1). A DUPLICATE COPY OF THIS SHEET IS ENCLOSED.

An early and favorable examination on the merits is respectfully requested.

Respectfully submitted,  
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